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Business Performance Review [BPR]

UNIT-V : Aug'2017

Executive Summary of API Operations (I/3)

Production performance									Costs (% of Sales)				
Block	Aug'17 (MT)			Q2 till date (MT)			Year To Date			Aug'17		July'17	
	B	S&OP	A	B	S&OP	A	B	A		B	A	B	A
A	48.75	46.10	47.24	83.21	68.99	73.60	215.21	188.38	Material Costs	58.02		57.68	67.16
B	20.30	18.33	15.48	41.51	36.80	34.86	85.89	64.43					
C	5.73	5.49	4.91	14.20	11.27	10.18	45.13	28.83	Conversion costs	14.34		14.34	11.9
G	0.00	1.59	1.18	1.40	3.35	3.64	5.60	6.45					
PB-I	2.25	0.00	0.00	5.45	1.56	0.29	16.20	6.45	Outbound Logistics	1.22		1.22	.92
PB-II	3.20	2.03	2.02	5.95	4.48	4.92	15.44	12.89					
D-Left	1.60	3.13	4.11	3.40	5.83	7.08	13.08	14.48					
D-Right	13.70	14.17	14.91	29.90	24.79	27.77	69.80	64.24					
D-Lyo	9.00	7.31	5.88	16.50	15.24	14.06	45.40	39.37					
F-Lyo	13.00	12.07	11.60	27.00	24.97	23.57	72.70	55.64					
Total	117.53	110.23	107.32	228.53	197.28	199.96	584.45	481.16	**Total**	**73.57**		**73.24**	**79.98**

***B-Budgeted, A-Actual, YTD-year to Date(From April'17 to till date)**

Executive Summary of API Operations (2/3)

Inventory Management						Manufacturing				
	Aug'17 (Rs in Cr)		No Of Days		Review month		Bud.	Aug'17	Q2	Year To Date
	B	A	B	A	TCS>180d					
RM/		36.46		18		Unplanned downtime-Mfg (%)	--	1.75% 1008 hrs	1.17% 1440 hrs	2.00% 6311 hrs
						Unplanned downtime-Others (%)	--	0.52% 300 Hrs	0.36% 444 hrs	0.73% 2304 hrs
FG		90.00		39		Throughput (MT/month)	129.30	107.32	199.96	481.16
IM/WIP		49.64		21		Capacity Utilization(%)	--	83	77	81
Total		**176.10**				**OEE (%)**	**--**	**72**	**69**	**69**

Aug'17 sales 72.27 Cr, Margin 15% 10.84 Cr. Net sales 61.43 Cr

*B-Budgeted, A-Actual, YTD-year to Date(From April'17 to till date)
OEE: Overall Equipment Effectiveness

Executive Summary of API Operations (3/3)

Customer Service			Quality			
	Budgeted-Aug'17	**Actual-Aug'17**		**Aug'17**		**YTD**
	Vol (MT)	Vol (MT)		E1P	E2P	A
Regulatory	13.46	4.68	% Scrapped batches	0	0	0
ROW	12.01	16.35	% Right first time	99.12	99.72	99.43
ROI	15.12	14.55	% OOS	0.88	0.28	1.22
Mumbai	10.91	5.66	%OOT	1.47	0	1.58
LATAM, CHEMO	1.50	0.3	% OTIF	77		78
CA, CHINA	0.75	0.00	# Qlty Deviations	6	0	9
FDF	48.76	46.30	# Outstanding CAPAs	97	32	129
Over all	102.51	87.84				

Production Performance – Aug'17

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Products	Budgeted (Kg)	Planned (Kg)	Actuals (Kg)	Budget vs. Actuals (Kg)	Planned vs. Actuals (Kg)	Comments
Amoxicillin Trihydrate	47746	45797	46931	-815	1134	
Pivmecillinam Base	0	1200	1201	1201	1	
Pivmecillinam Crude	400	1000	698	-102	-302	1) 3batches not charged due to IPA HCl quality issue.
Pivmecillinam Hydrochloride	1008	0	0	-1008	0	
Cloxacillin Sodium (DMF Route)	0	2660	2565	2565	-95	
Dicloxacillin Sodium (DMF Route)	4388	0	0	-4388	0	
Oxacillin Sodium (DMF Route)	6460	4180	4197	-3213	17	
Flucloxacillin Sodium (DMF Route)	0	0	473	473	473	
Piperacillin USP DMF Route & Europe)	9450	10350	10312	862	-38	
Piperacillin Anhydrous (Japan)	0	1275	1360	1180	85	
Tazobactam Hemihydrate USP - DMF Route	0	308	347	347	39	

Production Performance – Aug'17

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Products	Budgeted (Kg)	Planned (Kg)	Actuals (Kg)	Budget vs. Actuals (Kg)	Planned vs. Actuals (Kg)	Comments
Flucloxacillin Sodium Sterile (DMF Route)	1700	384	359	-1461	-25	
Ampicillin Sodium Sterile 2-EHA	1224	1050	1513	289	463	
Nafcilllin Sodium Sterile (DMF Route)	255	0	0	-255	0	
Sulbactam Sodium Sterile (DMF Route)	0	1012	1161	1161	149	
Oxacillin Sodium Sterile (DMF US)	0	1360	970	970		
Ampicillin Trihydrate Sterile	1200	0	0	-1200	0	
Ampicillin and Sulbactam For Inj 2-EHA Route	1400	3900	3012	1612	-888	Total : 9 Batches, 1) 3 Batches not charged due to Mannitol delay due to Mubai flood 2) 6 Batches not charged due to HVAC break down.
Nafcillin For Injection	206	154	151	-55	-3	

Production Performance – Aug'17

Products	Budgeted (Kg)	Planned (Kg)	Actuals (Kg)	Budget vs. Actuals (Kg)	Planned vs. Actuals (Kg)	Comments
Sulbactam Sodium Sterile	3500	3750	3766	266	16	
Ampicillin Sodium Sterile	8200	7392	7842	-1062	450	
Ampicillin and Sulbactam for injection	2000	3000	4004	2004	1004	
Amoxicillin sodium sterile	500	0	0	-500	0	
Aztreonam For Injection USP (Sterile)	100	0	0	-100	0	
Oxacillin For Injection	1000	0	0	-1000	0	
Oxacillin Sodium Sterile Crystalline	1000	0	0	-1000	0	
Cloxacillin Sodium Sterile (Lyo)	3200	716	1433	-1767	717	
Piperacillin and Tazobactam (8:1)	18800	17480	17013	-1787	-467	3Batches not charged due to LYO-01 Vaccum problem and LYO -03 Compressor water leakage.
Tazobactam sodium sterile	0	618	617	467	-1	
Cloxacillin Sodium Sterile (Crystalline)	0	2430	2672	2672	242	
Cloxacillin sodium sterile (60:40)	0	700	701	701	1	

Production Performance – Aug'17

Products	Budgeted	Planned	Actuals	Budget vs. Actuals	Planned vs. Actuals	Comments
	(Kg)	(Kg)	(Kg)	(Kg)	(Kg)	
Piperacillin Acid	15500	14823	14943	-557	120	
Pivmecillinam Hcl(RP)	0	60	60	60	0	
Imipenem and Cilastatin For Injection (1:1)	800	0	0	-800	0	
Imipenem Sterile	425	0	0	-425	0	
Cilastatin sodium sterile	425	0	0	-425	0	
Meropenem Sterile	1980	1838	1852	-128	14	
Meropenem For Injection	2400	2000	1983	-417	-17	
Doripenem sterile	0	34	32	32	-2	
Cefdinir	1000	0	0	-1000	0	Manufacturing facility U/rennovation for Pencillin products.
Cefuroxime Axetil Coated Granules	1250	0	0	-1250	0	
Grand Total	137516	129471	129665	-7851	194	

Service Level Analysis (Dispatch- Aug'17)

Products	Budget	Committed	Actuals Vol (Kg)	Difference Qty	OTIF (A Vs C) (%)	Comments
Amoxicillin Trihydrate	47745.6	32860	29226	-3634	100	1)2000Kg Advance supplied in July-17 2)960Kg material ready ,awaiting for clearance 3)490Kg dispatched on 02.09.17 (due to CRT Vehicle full).
Amoxicillin Trihydrate (Enzyme Route)	0	420	420	0	100	
Pivmecillinam Hydrochloride	1008	0	0	0	100	
Flucloxacillin Sodium (DMF Route)	0	3450	3596	146	100	
Dicloxacillin Sodium (DMF Route)	4387.5	0	0	0	#DIV/0!	
Cloxacillin Sodium (DMF Route)	0	2000	0	-2000	0	Material ready will be dispatched in Sep'17
Oxacillin Sodium (DMF Route)	6460	0	0	0	#DIV/0!	
Piperacillin Acid (US & Europe)	9450	7000	7091	91	100	
Piperacillin Anhydrous (Japan)	0	500	500	0	100	

Service Level Analysis (Dispatch- Aug'17)

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Products	Budget	Committed	Actuals Vol (Kg)	Difference Qty	OTIF (A Vs C) (%)	Comments
Tazobactam (US & Europe)	0	900	741	-159	100	200Kg Advance supplied in July-17
Tazobactam (Japan)	0	0	25	25	100	
Flucloxacillin Sodium Sterile	1700	500	0	-500	0	No clearance
Ampicillin Sodium Sterile 2-EHA	1224	950	1000	50	100	
Nafcillin For Injection	206	150	150	0	100	
Ampicillin and Sulbactam For Inj 2-EHA Route	1400	2200	2100	-100	95	100Kg material dispatched on 02.09.17 (due to CRT vehicle full)
Ampicillin and Sulbactam for Injection (EP)	0	0	799	799	100	
Ampicillin Trihydrate Sterile	1200	0	0	0	100	
Sulbactam Sodium Sterile	3500	7000	2785	-4215	40	Orders required
Ampicillin Sodium Sterile	8200	12500	9230	-3270	74	Orders required
Ampicillin SS and Sulbactam SS (2:1)	2000	3000	1750	-1250	58	Clearance required
Amoxicillin sodium sterile	500	1000	1110	110	100	
Amoxycillin SS and Flucloxacillin SS (1:1)	0	150	150	0	100	
Oxacillin For Injection	1000	450	0	-450	0	Order required
Aztreonam for injection	100	25	35	10	100	
Cloxacillin Sodium Sterile	0	2000	900	-1100	45	Order required

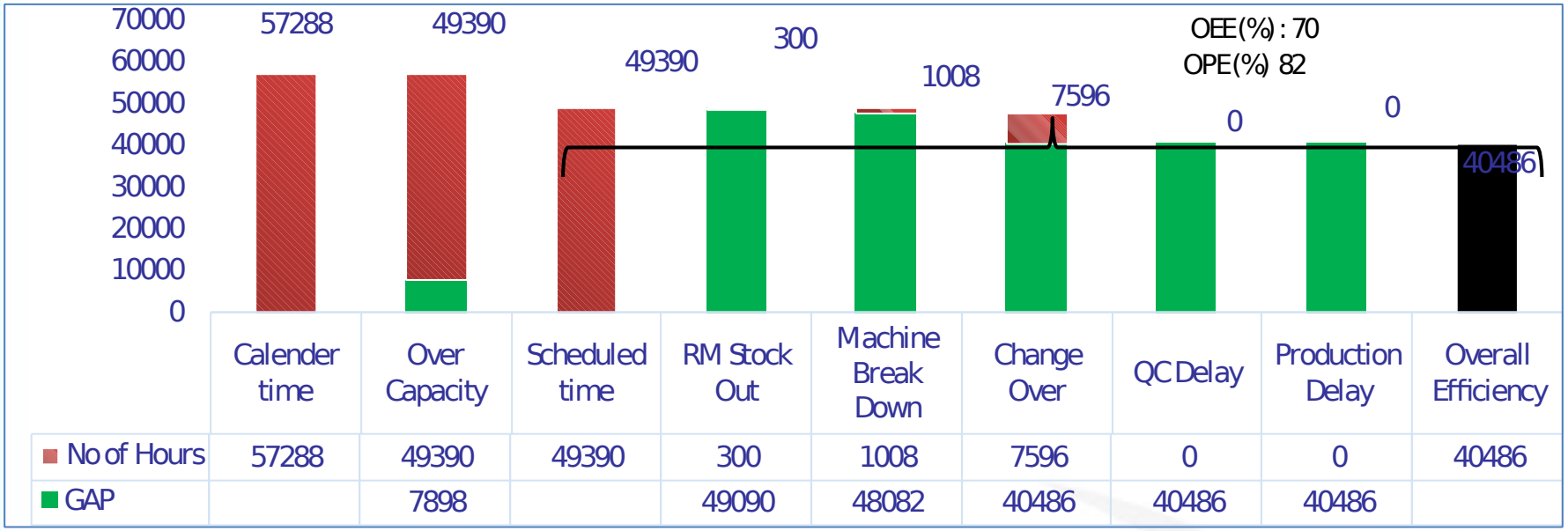
Service Level Analysis (Dispatch- Aug'17)

Products	Budget	Committed	Actuals Vol (Kg)	Difference Qty	OTIF (A Vs C) (%)	Comments
Cloxacillin Sodium Sterile BP	0		700	700	100	
Piperacillin and Tazobactam (8:1)	18800	21760	20555	-1205	94	
Cloxacillin Sodium Sterile LYO	3200	1833	600	-1233	33	Order required
Tazobactam Sodium Sterile	0		17	17	100	
Imipenem and Cilastatin For Injection (1:1)	800	1250	867	-383	69	Order required
Meropenem For Injection	2400	4500	2095	-2405	47	Order required
Cefdinir	1000	5850	0	-5850	0	Order required
Cefuroxime Axetil Coated Granules	1250	1275	127	-1148	10	Order required
Cefixime	0	1275	1275	0	100	
	117531	**114798**	**87844**		**77**	

Inventory management

Type	Inventory (Crores)			Inventory(No Of Days)			Aging (in Crores)				
	B	A	Avg	B	A	Avg	< 6 months	6-12 months	1-2 yrs	2-3 yrs	>3 yrs
RM		36.46			18		31.10	1.92	2.60	0.30	0.54
FG		90.00			39		80.20	3.88	5.57	0.35	0
IM/WIP		49.64			17		45.96	0.78	0.55	2.33	0
TOTAL		**176.10**					**157.26**	**6.58**	**8.72**	**2.99**	**0.54**

Manufacturing OEE – Aug'17



	Calender time	Over Capacity	Scheduled time	RM Stock Out	Machine Break Down	Change Over	QC Delay	Production Delay	Overall Efficiency
No of Hours	57288	49390	49390	300	1008	7596	0	0	40486
GAP		7898		49090	48082	40486	40486	40486	

Note: OEE- % of equipment used in the entire plant (Overall Efficiency/Calendar Time)

OEE: Overall Equipment Effectiveness

OPE- % of bottleneck equipment used (Overall Efficiency/Scheduled Time)

OPE: Overall Process effectiveness

*Values in No. of Hours are given for reference and can be edited accordingly.

Manufacturing – Capacity Utilization

Unit	Block	Module	Aug'17 (%)	Year to Date (%)	Remarks
V	Block-A	I	86	84	1) 7 days change over and DEHT
V	Block-A	II	89	80	1) 5 Batches (Pivmicillinam Hcl Crude) not charged due to IPAHcl Quality problem 2) 1 Batch not charged due to Booster Vacuum pump break down.
V	Block-B	I	80	92	1) 3 days changeover 2) 1 Batch (Cloxacillin Sodium) not charged due to -15°C brine cooling problem
V	Block-B	II	98	97	1) 3 days changeover 2) 3batches (EDPC) not charged due to GLB210 condenser damaged.
V	Block-C	I	43	49	11 days changeover and Simulations
V	Block C	II	85	72	14 days changeover and simulation
V	Block-G	I	54	55	Piperacillin Trail batches
V	PB-II	I	97	86	1) 4 days changeover

Manufacturing – Capacity Utilization

Unit	Block	Module	Aug'17 (%)	Year to Date (%)	Remarks
V	D	R/W	90	88	6 days change over
V	D	L/W	79	86	5 days change over
V	D	Lyo	90	85	6 days changeover
V	PB-III		97	95	
V	F-Block		**81**	**92**	3 Batches not charged due to LYO-01 Vaccum problem and LYO -03 Compressor water leakage.
	Over all Plant		**83**	**81**	

Manufacturing OEE

OEE Trend (Block)	M (%) Aug'17	YTD FY 17-18
Block-A, M-I	77	79
Block-A, M-II	74	70
Block-B, Module-I	61	76
Block-B, Module-II	96	96
Block-C,Module-I	53	39
Block C, Module-II	28	33
Block-G	39	39
PB-II	81	72
D-R/W	76	77
D-L/W	70	73
D-LYO	71	67
PB-III	90	88
F-Block	73	83
Over all Plant	**72**	**69**

Manufacturing OPE

OPE Trend (Block)	M (%) Aug'17	YTD FY 17-18
Block-A, A M-I	84	85
Block-A, M-II	88	80
Block-B, Module-I	81	86
Block-B, Module-II	99	98
Block-C,Module-I	82	64
Block C, Module-II	52	54
Block-G	43	50
PB-II	92	87
D-R/W	81	84
D-L/W	74	79
D-LYO	88	81
PB-III	93	94
F-Block	75	86
Over all Plant	**82**	**80**

Executive Summary (E1P)– Quality (1/3)

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Owner:QA

				2Q FY 17	Aug-17	YTD FY 17
Output Metrics	Audit Performance - Internal	Internal Audits # Audits	Critical Obs	-	Nil	
			Major Obs	-		16
			Minor Obs.	-		23
			Open Actions > Timelines	-		-
	Audit Performance - External	External Audits # Audits (04) Details specified Audit details slide	Critical Obs.	-		--
			Major Obs.	-		3
			Minor Obs.	8		11
			Open Actions > Timelines	-		-
	Customer complaints	# Total Complaints (Quality -0)		2	0	12
		# Complaints (traceable to internal processes)		0	0	-
		Average Complaint Closure (Business Days)		> 30	> 30	-
		# Field Alerts		-		0
		# Far within 3 days	# Far beyond 3 days	- -	- -	0 0
		Adverse Events – Expected		-	-	0
		Adverse Event – Unexpected		-	-	0
Input Metrics	Operations / Production	% Incoming rejects (RM/PM)		0	0	0
		% Right First Time for Incoming Released		100	100	100%
		% RFT for Finished Good Released		99.41	99.12	99.31
		Total # Deviations		83	40	156
		#quality		7	6	13
		% Batches rejected		0	0	0
		Product recalls		0	0	0

Executive Summary E1P– Quality (2/3)

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Owner: QA/QC

			2Q FY 17		Aug-17		YTD FY 17	
Input Metrics -	Deviations	% Deviations with confirmed root cause	45		14		108	
		% Deviations with probable root cause	0		0		-	
		% Recurring Deviations (Environmental monitoring-BMS)	36.25		37.5		32.05	
		# Critical management Notifications	-		-			
		Average # days to Close Investigations	-		-		-	
		# Investigations Closed						
		1-30 business days / 31-60 business days	26	35	12	10	38	38
		> 60 business days	23		9		68	
		# Investigations carry forward (Deviations carry forward)	41		29		56	
	CAPAs	# CAPA Created in Month	46		25		132	
		# CAPA Closed in Month	51		19		146	
		Total # CAPAs Open	77		20		**97**	
	OOS	# OOS reported (API Release -8)	4		3		31	
		# OOS closed	16		5		33	
		# OOS carry forward	2		1		11	
		Invalid OOS	0		0		0	
		Valid OOS	3		2		**13**	
	QC Testing Batch Release	Average QC testing time for incoming material from date received in Laboratory			0-2 days 122 Nos , 50% 3-5 days 67Nos ,27% 6-15 days 25 Nos,10 % 16-30 days 32 Nos,13%			
		Total # 1-14 days / Total # >14 days	469	41	214	32	1480	130
		Average QC testing time for Finished Goods from date received in Laboratory			0-4 days 13 Nos,5% 5-9 days 93 Nos,33% 10-20 days 163 Nos,58% 21-30 days 11 Nos, 4%			
		Total # 1-28 days / Total # >28 days	559	0	280	0	1624	
		Avg time to release batch by QA - (Non Sterile)	487		216		1077	
		Total # 1-14 Days / Total # >14 Days						-
		Avg time to release batch by QA - (Sterile)	152		81		346	
		Total # 1-28 Days / Total # >28 Days						-

Executive Summary – Quality (3/3)

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Owner: QA/QC

Products	# Batches Analysed	# OOS Batches	% Scrapped batches		% OOS batches		% RFT		Comments/ Root causes and mitigation plan
			Aug'17	YTD	Aug'17	YTD	Aug'17	YTD	
Amoxicillin USP (Powder Grade) - DMF Route	35	0	0	0	0	0	0	0	-
Amoxicillin Trihydrate (Compacted)- DMF Route	14	0	0	0	0	0	0	0	-
Amoxicillin USP (Compacted) - DMF Route	12	0	0	0	0	0	0	0	-
Amoxicillin Trihydrate DMF Route	3	0	0	0	0	0	0	0	-
Amoxicillin Trihydrate Ph.Eur., (Powder Grade)	10	0	0	0	0	0	0	0	-
Amoxicillin Trihydrate Ph.Eur., (Compacted) For Amoxi Capsules BP	1	0	0	0	0	0	0	0	-
Amoxicillin USP (For USMarket)	21	0	0	0	0	0	0	0	-
Tazobactam Hemihydrate USP - DMF Route	8	0	0	0	0	0	0	0	-
Pivmecillinam Free Base (DMF Route)	12	0	0	0	0	0	0	0	-
Pivmecillinam Crude (DMF Route)	3	0	0	0	0	0	0	0	-
Oxacillin sodium Ph. Eur. (Compacted) - DMF Route	7	0	0	0	0	0	0	0	-
Oxacillin Sodium DMF Route	10	0	0	0	0	0	0	0	-
Flucloxacillin Sodium Ph.Eur., Compacted - COS Grade.	2	0	0	0	0	0	0	0	-

Executive Summary – Quality (3/3)

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Owner: QA/QC

Products	# Batches Analysed	# OOS Batches	% Scrapped batches		% OOS batches		% RFT		Comments/ Root causes and mitigation plan
			Aug'17	YTD	Aug'17	YTD	Aug'17	YTD	
Piperacillin USP- DMF Route	61	1	0	0	1.63	0	98.37	0	stability.
Cloxacillin Sodium Ph.Eur., (Compacted)	14	0	0	0	0	0	0	0	-
Piperacillin Wet material	7	0	0	0	0	0	0	0	-
4-Ethyl-2,3-Dioxo-1-Piperazine Carbonyl Chloride	21	0	0	0	0	0	0	0	-
Sulbactam Sodium Sterile (DMF Route)	16	0	0	0	0	0	0	0	-
Flucloxacilin Sodium Sterile (DMF Route)	4	0	0	0	0	0	0	0	-
Oxacillin Sodium Sterile (DMF Route)	14	0	0	0	0	0	0	0	-
Nafcillin For Injn. [Sterilenafcillin Sodium Buffered With Sod.Citrate]	3	0	0	0	0	0	0	0	-
Ampicillin Sodium Sterile(Sod.2 EHA Route)(CAS No:69-52-3)	14	0	0	0	0	0	0	0	-
Ampicillin and Sulbactam For Inj.[Sterile Mixture (2:1)]Sodium 2-EHA Route	30	0	0	0	0	0	0	0	-
Piperacillin Hydrate for Japan	18	1	0	0	5.55	0	94.45	0	Unable to achieve high Vacuum
Ampicillin Trihydrate Sterile	2(Analyzed in July)	1	0	0	50%	0	50	0	Trial batche executed to meet the customer requirement

Regulatory / Customer Audits:E1P

Owner: QA

Customer / Regulatory Agency	Dates of Audit	Product	Dispatch qty
No audits in the month Aug-2017			

Executive Summary (E2P) – Quality (1/3)

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Owner : QA

				Q2 FY 17	Aug-17	YTD FY 17
Output Metrics	Audit Performance - Internal	Internal Audits # Audits **Nil**	Critical Obs.	0	**0**	0
			Major Obs	24	**0**	31
			Minor Obs.	19	**0**	52
			Open Actions > Timelines	03 > March'2018	**NA**	03 > March'2018
	Audit Performance - External	External Audits # Audits	Critical Obs.	Nil	**No audits held in the month**	**Nil**
			Major Obs.	10		**10**
			Minor Obs.	24		**24**
			Open Actions > Timelines	01 > Aug'2017	**Nil**	**01 > Aug'2017**
	Customer complaints	# Total Complaints		0	**0**	**05**
		# Complaints (traceable to internal processes)		0	**0**	**0**
		Average Complaint Closure (Business Days)		25	**0**	**25**
		# Field Alerts			**0**	
		# Far within 3 days	# Far beyond 3 days	0 0	**0 0**	**0 0**
		Adverse Events – Expected		0	**0**	**0**
		Adverse Event – Unexpected		0	**0**	**0**
Input Metrics	Operations/ Production	% Incoming rejects (RM/PM)		0.41%	**0**	**0.41%**
		% Right First Time for Incoming Released		100%	**100%**	**97.15%**
		% RFT for Finished Good Released		100%	**100%**	**99.90%**
		Total # Deviations		05	**0**	**23**
		# Deviations per batch		0	**0**	**2**
		% Batches rejected		0	**0**	**0**
		Product recalls		0	**0**	**0**

Executive Summary E2P– Quality (2/3)

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Owner: QA/QC

			Q2 FY 17		Aug-17		YTD FY 17	
Input Metrics	Deviations	% Deviations with confirmed root cause	100%		**0**		**90.41%**	
		% Deviations with probable root cause	0%		**0**		**60%**	
		% Recurring Deviations	0%		**0**		**50.76%**	
		# Critical management Notifications	0		**0**		**0**	
		Average # days to Close Investigations	12		**0**		12	
		# Investigations Closed						
		1-30 business days / 31-60 business days	0	0	**0**	**0**	**20**	**03**
		> 60 business days	0		**0**		**0**	
		# Investigations carry forward	0		**0**		**9**	
	CAPAs	# CAPA Created in Month	13		**07**		**62**	
		# CAPA Closed in Month	12		**07**		**30**	
		Total # CAPAs Open	07		**07**		**32**	
	OOS	# OOS reported	01		**01**		**13**	
		# OOS closed	1		**1**		**09**	
		# OOS carry forward	08		**08**		**05**	
		Invalid OOS (Lab error – Glass ware contamination and over time sonication)	0		**01**		**01**	
		Valid OOS	0		**0**		**07**	
	QC Testing Batch Release	Average QC testing time for incoming material from date received in Laboratory	Avg. 2 days		**Avg. 2 days**		**Avg. 2 days**	
		Total # 1-14 days / Total # >14 days	RM-174 PM-27	RM-335 PM-36	**RM-99 PM-17**	**RM-159 PM-24**	**RM-943 PM-94**	**RM-989 PM-145**
		Average QC testing time for Finished Goods from date received in Laboratory	2-4 days		**2-4 days**		**2-4 days**	
		Total # 1-28 days / Total # >28 days	463	48	**219**	**19**	**2090**	**152**
		Avg time to release batch by QA - (Non Sterile)	Non Sterile: Avg. 1 day		**Non Sterile: Avg. 1 day**		**Non Sterile: Avg. 1 day**	
		Total # 1-14 Days / Total # >14 Days	67	87	**4**	**5**	**462**	**182**
		Avg time to release batch by QA - (Sterile)	Avg. 15 days		**Avg. 15 days**		**Avg. 15 days**	
		Total # 1-28 Days / Total # >28 Days	486	109	**220**	**109**	**1352**	**109**

Executive Summary E2P – Quality (3/3)

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Owner: QA/QC

Products	# Batches Analysed	# OOS Batches	% Scrapped batches		% OOS batches		% RFT		Comments / Root causes and mitigation plan
			Aug'17	YTD	Aug'17	YTD	Aug'17	YTD	
Ampicillin sodium sterile	48	0	0	0	0	0	100	100	-
Meropenem for injection	21	0	0	0	0	0	100	100	-
Pip+Tazobactam for injection	61	0	0	0	0	0	100	100	-
Ampi+Sulbactam for injection	29	0	0	0	0	0	100	100	-
Sulbactum sodium sterile	35	0	0	0	0	0	100	100	-
Piperacillin Acid	136	0	0	0	0	0	100	100	-
Meropenem sterile	14	0	0	0	0	0	100	100	-

FG Stock Analysis

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Block	Product	Price/Kg (in INR)	Standalone capacity	Aug'17 Opening stock (Kg)	Aug'17 Prodn Kg	Aug'17 Dispatch Kg	Sep'17 Opening stock (Kg)	Sep'17 Value in lakhs	Sep'17 Production Qty Kg	Sep'17 Dispatch Kg	Sep'17 Value in Lakhs
A-1	Amoxicillin Trihydrate DMF Route	1905	58464	0	46931	29226	17691	337	15590	31000	591
A-2	Tazobactam Hemihydrate USP - DMF Route	70000	1296	437	305	741	42	29	1008	1000	700
	Pivmecillinam Hydrochloride (DMF Route)	11439	3780	66	0	0	0	0	0	0	0
B-1	Flucloxacillin Sodium DMF Route	3375	12699	5511	473	3596	1907	64	0	0	0
	Dicloxacillin Sodium DMF Route	3142	11603	69	0	0	68	2	4875	2275	71
	Oxacillin Sodium DMF Route	3343	10640	1427	1349	0	3247	109	4560	5000	167
	Cloxacillin Sodium (DMF Route)	2938	5320	0	2565	0	2565	75	0	2565	75
	Flucloxacillin Magnesium - Release (For Europe)	8895	6451	42	0	0	42	4	0	42	4
B-2	Piperacillin - DMF Route	4255	11250	2989	9191	7091	5081	216	3750	8800	374
	Piperacillin Hydrate for Japan	10155	7392	90	0	0	74	8	0	0	0
C-1	Flucloxacilin Sodium Sterile (DMF Route)	7803	3060	830	0	0	830	65	0	0	0
	Ampicillin Sodium Sterile(Sod.2 EHA Route)(CAS No:69-52-3)	4800	4284	1471	1513	400	1232	59	0	0	0
C-2	Ampicillin Trihydrate Sterile	11500	2400	112	0	0	112	13	0	0	0
	Ampicillin Sodium Sterile(Sod.2 EHA Route)(CAS No:69-52-3)	4800	6020	2650	0	600	1079	52	2700	1200	58
	Flucloxacilin Sodium Sterile (DMF Route)	7803	3060	0	239	0	229	18	120	0	0

FG Stock Analysis

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Block	Product	Price/Kg (in INR)	Standalone capacity	Aug'17 Opening stock (Kg)	Aug'17 Prodn Kg	Aug'17 Dispatch Kg	Sep'17 Opening stock (Kg)	Sep'17 Value in lakhs	Sep'17 Production Qty Kg	Sep'17 Dispatch Kg	Sep'17 Value in Lakhs
C-3	Oxacillin For Injection (DMF Route)	9763	7200	0	0	0	0	0	2371	700	68
	Ampicillin and Sulbactam For Injection[Sterile Mixture(2:1)] DMF Route	10678	7200	799	0	799	0	0	0	0	0
	Ampicillin and Sulbactam For Inj.[Sterile Mixture (2:1)]Sodium 2-EHA Route	10678	7200	1500	3012	2100	2400	256	200	1500	160
	Nafcillin For Injn. [Sterilenafcillin Sodium Buffered With Sod.Citrate]	18150	3672	0	151	150	0	0	154	0	0
G	Tazobactam Hemihydrate USP - DMF Route	72770	1980	176	0	0	96	70	1056	500	364
	Tazobactam Anhydrous (Metacresol Route) for Meiji Japan	86008	4272	25	0	25	0	0	0	0	0
	Piperacillin Hydrate for Japan	10155	0	0	1180	500	676	69	829	1450	147
	Amoxicillin Trihydrate USP (Powder Grade) (Enzyme route)	1453	85680	9101	0	420	8670	126	0	8600	125
PB-I M-I	Cefuroxime Axetil Coated Granules	11180	2588	1325	0	127	1198	134	0	1222	137
	Cefdinir (Plain)	16617	4624	5860	0	0	5860	974	0	5850	972
PB-II	Imipenem and Cilastatin For Injection (1:1)	78745	1700	1135	0	867	268	211	700	850	669
	Meropenem For Injection	60237	3700	2703	1983	2095	2588	1559	1300	3000	1807
	Doripenem Sterile	686920	178	3	32	0.0	34	231	14	30	206

FG Stock Analysis

AUROBINDO
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Block	Product	Price/Kg (in INR)	Standalone capacity	Aug'17 Opening stock (Kg)	Aug'17 Prodn Kg	Aug'17 Dispatch Kg	Sep'17 Opening stock (Kg)	Sep'17 Value in lakhs	Sep'17 Production Qty Kg	Sep'17 Dispatch Kg	Sep'17 Value in Lakhs
D-Right	Ampicillin Sodium Sterile	3163	15840	15388	7138	9230	10719	339	8096	14000	443
	Ampicillin and Sulbactam for injection [Sterile Mixture (2:1)]	4496	0	2250	4004	1750	5000	225	3000	3000	135
	Sulbactam Sodium Sterile	5619	6750	4706	3766	2785	4828	271	1500	4500	253
D-Left	Amoxycillin Sodium Sterile	6028	3600	1511	0	1110	400	24	480	850	51
	Amoxycillin Sodium Sterile and Flucloxacillin Sodium Sterile(1:1)	8268	0	150	0	150	0	0	0	0	0
	Oxacillin For Injection	4845	0	450	0	0	450	22	0	450	22
	Dicloxacillin Sodium Sterile	5000	2563	0	0	0	0	0	634	500	25
	Aztreonam For Injection USP (Sterile)	75000	630	49	0	35	14	10	100	14	11
	Cloxacillin Sodium Sterile (Cry)	2668	3240	1845	2672	900	3318	89	0	3500	93
	Cloxacillin sodium sterile USP/BP	6042	3240	80	700	700	80	5	0	0	0
D-Lyo	Cloxacillin sodium sterile Lyo	3300	8550	1274	1433	600	1684	56	0	1600	53
	Tazobactam Sodium Sterile	70262	2700	31	467	17	480	337	386	1000	703
	Piperacillin and Tazobactam For Injection USP (8:1) (Bulk Drug)	11779	7683	3267	5412	6855	1821	214	5504	6000	707
F	Piperacillin and Tazobactam For Injection USP (8:1) (Bulk Drug)	11779	11000	8537	11601	13700	5690	670	14157	19000	2238
	Total				106119	86569	90473	6942	73083	129998	11429

EHS Performance (1/3)

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Safety compliance (*If any compliance related to EHS can be added)

Owner: EHS

Factory Rules	Unit-V
Factory licenses (CFE&CFO)	Available
CFO & Non-CFO Products	Both products
Biomedical waste authorization	Available
PETL Agreement	Available
Fire NOC	Not Available
TSDF Agreement	Available
LPG Cylinders	Not Available
Any Legal Notices	No
Any environmental Issues	No
Environmental Clearance	Available
Water Consent	Available(CFO)
Air Consent	Available(CFO)
Hazardous Waste consent	Available(CFO)

EHS Performance (2/3)

Safety compliance (*If any compliance related to EHS can be added)

Owner: EHS

Safety Compliance	Aug'17
Actual Discharge by plant (HTDS) in KLM	1651
Actual Discharge by plant (LTDS) in KLM	3272
Actual Discharge by plant (Domestic) in KLM	1959
Solid Waste (Spent Carbon) Kg/day	890
Spent Solvents & Mixed Spent Solvents (Kg/Day)	742
Any Legal Notices	No
Any Environmental Issues	No

EHS Performance (3/3)

Owner: EHS

EHS projects	Non-Capex (Year To Date)	
	Budget (Lakhs)	**Actual (Lakhs)**
Revenue budget complies (Lakhs per month)	12	14.8 (Environment)
Capex Budget for the year 2017-18 submitted to finance dept.	270.82	
Expansion budget was taken separately	NA	NA

Utility Consumption:

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Owner: Engg & Utility

Utility	July 17 Consumption		August 2017 Consumption	
	Qty	Value in Rs.	Qty	Value in Rs.
A) Coal (MT)	1556.06	85,42,769	1417.53	77,82,239
B) Electricity (KVAH)	3666540	2,15,69,966	37,22,720	2,14,45,600
C) Water (KL)	18743	20,25,389	19840	20,48,814
D) Stores / Spares & Fabrication Expenses (Rs)	--	67,45,844	--	63.36,354
E) Labour Cost (Rs)	--	29,82,509	--	27,72,729
Grand Total (A+B+C+D+E)	--	4,18,66,477	--	4,03,85,736
Production Output (Kgs)	150000		136850	
Cost of Product per Kg – Rs.	279		295	

Business Excellence - Cost saving status

Sr. No	Description		Location	Month	Cost Benefit
1	15W LED light fittings 30 no's replaced in the place of 2x36 Watt FTL lamps	Regulatory QC	Energy conservation, phased manner will be arranged at Column	NA	Cost saving 0.15 lacks /Annum (details attached Annexure-I) towards energy conservation And improved the light intensity levels from <150 to >300 LUX to meet the cGMP standards.
2	150W LED lighting 8 no's replaced with 250W Metal Halide lamps.	Regulatory, Boiler & Emerging sites Street lighting	Energy conservation, phased manner will be arranged at Column	NA	Cost saving 0.23 lacks /Annum (details attached Annexure-I) towards energy conservation.
3	100W LED lighting 6 no's replaced with 250W Metal Halide lamps.	Boiler& Emerging Sites Street lighting	Energy conservation, phased manner will be arranged at Column	NA	Cost saving 0.26 lacks /Annum (details attached Annexure-I) towards energy conservation.

Business Excellence - Cost saving status

Sr. No	Description		Location	Month	Cost Benefit
4	A Block Eye wash fountain fresh water line arranged instead of reject water line with old unwanted lines as per safety norms 2"- 36 mtrs,20 flanges, Bend 4 No's & 1"-12mtrs,4 Flanges, Bend 4 No's.	A Block	Aug 17	0.43 Lac	
5	From B-I to A Block module -II New AODD pump purpose air line arranged by utilizing old removed unwanted lines 1 1/2" - 14Mtr,1"-10Mtr.	A Block	Aug 17	0.18 Lac	
6	A-I Compressed air damaged MS line replaced with old removed unwanted 2" SS line-18Mtrs.	A Block	Aug 17	0.17 Lac	
7	From B-I RTB111 to STB209 High TDS line arranged by utilizing old removed unwanted 1 1/2" lines (16mtrs), Flange:08No's.	B-I	Aug 17	0.13 Lac	
8	General vacuum 2" line found damage replaced with old removed unwanted line from cooling tower back side - 17 mtr, Flanges-06No's, Bend-01No.	E Block	Aug 17	0.19 Lac	
9	CTE010 to CTE08 Suction 4" SS line-07mtrs, 2" Delivery line-12Mtrs found damage replaced with old removed unwanted lines.	E Block	Aug 17	0.22 Lac	

lized the materials from In-house & cost Benefit is Rs 1.32

Business Excellence - Cost saving status

Sr. No	Description	Location	Month	Cost Benefit
10	11/2”ss pipe line replaced with old ms PTFE 11/2”Pipe 20mts,TEEs-5no.s,Elbows-18no.s (SR3008,ST-3010, ST-3028, ST-3014)	PB-III	Aug 17	0.50 Lac	
11	4” MS isolated pipe lines removed from boiler pipe rack bridge and re-used at fire station. 4”ms pipe - 60mts,Flanges-15no.s	Fire station	Aug 17	0.14 Lac	
12	500TR,1000TR Cooling tower Fan guards fabricated with 3/4” old (condenser tubes)ss pipe	MEE	Aug 17	0.18 Lac	
13	4"ss vapour condensate damaged pipe line replaced with old 4"ss pipe-11mt, 4”ss flanges-2no.s used.	MEE	Aug 17	0.19 Lac	

HR & Admin:

Owner: HR&ADMIN

HR& ADMIN	Aug'17		Year To Date (Avg)	
	B	A	B	A
Manpower Number	722	718	722	704
Contract Labour	844	725	844	719
OT	Rs.18.50 Lakhs	Rs.7.71 Lakhs	Rs.18.50 Lakhs	Rs.14.55Lakhs

Month	Total Amount in Lakhs
Jan-17	18.18
Feb -17	20.02
March -17	19.70
April -17	19.97
May-17	20.31
Jun-17	19.34
Jul-17	11.70
Aug'17	7.71

Production Plan Analysis (I/II)

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Block	Product	Standalone Capacity (in Kg.)	Price/Kg (in INR)	AUG'17 (Qty. in Kg.)		Sep'17 (Qty. in Kg.)		Oct'17 (Qty. in Kg.)		Aug'17 (Value in Cr.)		Sep'17 (Value in Cr.)		Oct'17 (Value in Cr.)	
				Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual
A-M-I	Amoxicillin Trihydrate DMF Route	58464	1905	45797	46931	15590		53592		8.72	8.94	2.97		10.21	
A-M-II	Pivmecillinam Hydrochloride (DMF Route)	3472	11460	0	0	1008		0		0.00	0.00	1.16		0.00	
	Tazobactam Hemihydrate USP	2419	70000	308	305	0		0		2.16	2.14	0.00		0.00	
B-M-I	Flucloxacillin Sodium DMF Route	12699	3439	0	473	0		765		0.00	0.16	0.00		0.26	
	Oxacillin Sodium DMF Route	11400	5064	4180	1349	4560		0		2.12	0.68	2.31		0.00	
	Dicloxacillin sodium DMF Route	8569	8512	0	0	4875		0		0.00	0.00	4.15		0.00	
	Cloxacillin Sodium (DMF Route)	5700	2938	2660	2565	0		0		0.78	0.75	0.00		0.00	
B-M-II	Piperacillin USP- DMF Route	11250	4309	10350	9191	3750		8550		4.46	3.96	1.62		3.68	
	Piperacillin Hydrate for Japan	7392	9922	0	0	0		0		0.00	0.00	0.00		0.00	
C-I	Fluclaxacillin Sodium Sterile (DMF Route)	3060	11830	0	0	0		0		0.00	0.28	0.00		0.00	
	Ampicillin Sodium Sterile(Sod.2 EHA)	4284	8904	1050	1513	0		0		0.93	1.35	0.00		0.00	
C-II	Ampicillin Sodium Sterile(Sod.2 EHA)	6020	8904	0	0	2700		1890		0.00	0.00	2.40		1.68	
	Fluclaxacillin Sodium Sterile (DMF Route)	2213	11830	240	239	120		0		0.28	#REF!	0.14		0.00	
	Ampicillin Sodium Sterile DMF	3720	19484	0	0	0		5328		0.00	0.00	0.00		10.38	
C-III	Ampicillin and Sulbactam For Inj.2 EHA Route	7200	10643	3900	3012	200		0		4.15	3.21	0.21		0.00	
	Oxacillin For Injection	9763	10643	0	0	2371		1463		0.00	0.00	2.52		1.56	
	Nafcillin For Injection (DMF Route)	3672	17188	154	151	154		0		0.27	0.26	0.26		0.00	
	Tazobactam Anhydrous (Metacresol Route) for Meiji Japan	1980	114480	0	0	0		356		0.00	0.00	0.00		4.08	

Production Plan Analysis (I/II)

Block	Product	Standalone Capacity (in Kg.)	Price/ Kg (in INR)	Jul'17 (Qty. in Kg.)		Aug'17 (Qty. in Kg.)		Sep'17 (Qty. in Kg.)		Jul'17 (Value in Cr.)		Aug'17 (Value in Cr.)		Sep'17 (Value in Cr.)	
				Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual
D-Right	Ampicillin Sodium Sterile	15840	3250	7392	7138	8096		0		2.40	2.32	2.63		0.00	
	Ampicillin and Sulbactam for injection		5400	4000	4004	3000		0		2.16	2.16	1.62		0.00	
	Sulbactam Sodium Sterile ((From Acid)	6480	5200	4050	3766	1500		0		2.11	1.96	0.78		0.00	
	Amoxicillin &Flucloxacillin		8268	0	0	0		0		0.00	0.00	0.00		0.00	
	Flucloxacillin sodium sterile	4806	6996	0	0	0		0		0.00	0.00	0.00		0.00	
D-Left	Cloxacillin Sodium Sterile (Cry)	2670	3300	2430	2672	0		2000		0.80	0.88	0.00		0.66	
	Cloxacillin sodium sterile USP/BP	2670	6042	700	700	0		1000		0.42	0.42	0.00		0.60	
	Flucloxacillin sodium sterile	2670	6996	0	0	0		0		0.00	0.00	0.00		0.00	
	Dicloxacillin sodium sterile	2028	6000	0	0	634		0		0.00	0.00	0.38		0.00	
	Amoxicillin sodium sterile	3150	6500	0	0	480		520		0.00	0.00	0.31		0.34	
	Aztreonam For Injection USP (Sterile)		75000	0	0	100		0		0.00	0.00	0.75		0.00	
D- LYO	Piperacillin and Tazobactam for injection	7683	11779	5254	5412	5504		6200		6.19	6.38	6.48		7.30	
	Cloxacillin sodium sterile Lyo	8120	3300	716	1433	0		2400		0.24	0.47	0.00		0.79	
	Tazobactam Sodium Sterile	1750	75000	618	467	386		546		4.64	3.50	2.90		4.10	
F- LYO	Piperacillin and Tazobactam for injection	11000	11779	12227	11601	14157		14157		14.40	13.66	16.68		16.68	

Production Plan Analysis (I/II)

Block	Product	Standalone Capacity (in Kg.)	Price / Kg (in INR)	Jul'17 (Qty. in Kg.)		Aug'17 (Qty. in Kg.)		Sep'17 (Qty. in Kg.)		Jul'17 (Value in Cr.)		Aug'17 (Value in Cr.)		Sep'17 (Value in Cr.)	
				Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual
PB-II	Imipenem and Cilastatin For Injection	1700	71341	0	0	700		500		0.00	0.00	4.99		3.57	
	Meropenem For Injection	3700	55324	2000	1983	1300		2300		11.06	10.97	7.19		12.72	
	Doripenem sterile	178	686920	34	32	14		0		2.32	2.22	0.93		0.00	

Month	Quantity (in MT)		Actual Produced
	Target	Actual	
Aug'17	109.33	106.12	-
Sep'17	73.08		

Present Project details (TSD)

TSD Unit-V On-Going Activities								
S. #	**Block & Product**	**Project**	**Investment Lakhs**	**Cost Savings (Lakhs / Annum)**	**Purpose**	**Action**	**Status and Remarks**	**Target Date**
1	SRP & Boiler	Steam Condensate re-Use.	NA	12	1. To reduced 15 KL/Day intake of fresh water. 2. To reduced coal consumption by reduction in enthalpy load of heating up to 100°C to up to 60°C.	1. CT water connection to kettle was removed. 2. Condensate water drained for 30 min during start of the batch.	Flow-meter to be installed to monitor the quantity intake per day.	Completed
2	G-Block Piperacillin Hydrate	Booster Vacuum Pump for VTD.	2.35	446.4	To meet the Moisture content requirement and to increase the capacity by reducing the drying cycle time from 31 Hrs to 18 Hrs.	800 m3/Hr booster vacuum pump was installed on temporary basis.	CAPEX initiated for 1670 m3/Hr capacity booster vacuum pump and CAPEX sent to HO.	Oct-17
3	B-II Block	Auto Sampling	1	-	Avoiding the risk of chemical exposure during the sampling.		PO to be released.	Sep-17
4	A-II Block	AODD Pump	1.2	5.6	1. Pump maintenance & spares cost must be reduced by avoiding vacuum pump break downs. 2. Solvent losses can be minimized.	Propose to install new AODD pumps for transferring centrifuge ML.	Completed	
5	G-Block All Products						PO to be released	Oct-17

Present Project details (TSD)

TSD Unit-V On-Going Activities								
S. #	**Block & Product**	**Project**	**Investment Lakhs**	**Cost Savings (Lakhs/ Annum)**	**Purpose**	**Action**	**Status**	**Target Date**
6	A-II Block PVMC Stage-I	Vacuum pump and cooling tower for MDC Distillation	16	23	To avoid frequent damage of vacuum pump and to meet the product target in time.	1. New graphite single stage water jet vacuum pump for initial distillation followed by water ring vacuum pump during end of the distillation was proposed. 2. New 150TR cooling tower was proposed to maintain the required water temperature for water ring vacuum pump.	PPFRP Receiver to be received.	Oct-17
7	A-II Block PVMC Stage-I	Secondary Condenser for MDC Distillation	0.4	1.68	1. To increase the MDC solvent recovery. 2. To reduce the vapor load on vacuum pump.	1. Secondary condenser available but disconnected. 2. Pressure test to be done for condenser to check leaks followed by Modification of connecting vent from primary to secondary.	To be started.	Oct-17
8	I-Block	Technical support for converting PB-I to I-Block.	NA	NA	Technical support for 1.Equipment selection, sizing and Process piping sizing as per process requirement. 2.Utility selection, Sizing as per process requirement. 3.All utility lines mapping with suitable line size calculations.		U/Process.	

Present Project details (TSD)

TSD Unit-V On-Going Activities								
S. #	**Block**	**Project**	**Investment Lakhs**	**Cost Savings (Lakhs/ Annum)**	**Purpose**	**Action**	**Status**	**Target Date**
09	I-Block	Centrifuge Nitrogen Blankettin g	NA	-	To reduce nitrogen Consumption and increase Mother Liquor quantity	Due to ageing of underground ML tanks could not install in B-Block, All are been transferred to I block.	To be installed	Nov-17
10	G-Block	Piperacillin Hydrate Trial and validation	NA	NA	Technical Support and Batches monitoring in Shifts for completion of trial and validation batches		Completed	
11		Amoxicillin Trihydrate (Enzyme Route) Re-validation.	NA	NA	Batches monitoring in Shifts for completion of Re-validation batches (Crystallization process Parameters Changed).		Completed	

Future Project details (TSD)

TSD Unit-V Future Projects till March 2018					
S.#	**Block**	**Project**	**Purpose**	**Status**	
1	All Blocks	Crystallisers Automation	To get consistent yield and quality of the final product.	Data collection is under process, Technical discussion to be done with vendor.	To be Started.
2		Utility Automation	To avoid temperature deviations during critical reactions and additions.		
3	A&B-Blocks	Powder Conveying System	1. To avoid Open Powder handling by providing closed power conveying system. 2. To avoid frequent Cleaning of grills and HVAC filters. 3. To reduce frequent Maintenance issues in HVAC because of powder choking. 4. To reduce manpower by avoiding manual handling of powder transfer,	Offer received from Vendor, Further technical discussin to be done.	To be Discussed.
4	Plant	Energy Efficient motors installation	To reduce power consumption by replacing the existing low efficient Old motors with new IE2 or IE3 type motors.	Trial with a motor and power consumption data comparison completed.	All new motors from october onwards will be procured with IE2 or IE3 type.

Future Project details (TSD)

TSD Unit-V Future Projects till March 2018				
S.#	**Block**	**Project**	**Purpose**	**Status**
5	SRS ROW	PSA, Vacuum pump& Storage tank	Ethanol fresh consumption can be reduced	CAPEX to be initiated.
6	Plant	VFD for cooling tower Fan	To reduce the power consumption by providing VFD for CT fan.	To be Discussed.
7	SRP	Bubble Cap trays replacement with Structured packing	To achieve the designed capacity w.r.t quantity and quality	CAPEX to be initiated
8		Acidic Compatible vacuum pump for m-Cresol distillation	1. High ultimate vacuum and high effective pumping speed will reduce the cycle time of the operation. 2. Vacuum Pump maintenance & spares cost must be reduced. 3. Avoid vacuum pump break downs.	
9		Regular De-Scaling of condensers	To minimise the solvent loss and to incresae the life of condensers by removing the scale formed regularly.	To be Discussed.

PD LAB Achievements Aug-2017

S. NO	B.NO	Name of the product	Block	Objective	Investigation	Results	Cost saving/Remarks
OOS&OOT							
1	PDEPC17001 ,02,03	Pivemecillinam Hcl	Reg-A	Un known impurity(oos-U05-000278	#001-As per std #002-Oxalyl Cl addi at -40 to -45°c instead of -35 to -32°c #003- Oxalyl Cl addi at -20 to -25°c	U/Analysis	-
2	PD/47/17	Pipercillin acid	Reg-B	Investigation of un known impurity.	1)Condensation temp 9-10°c instead of 3-7°c&PH 8-9 main instead of 6.5-7.0 2)PPT temp main 28-30°c instead of 17-19°c	U/Analysis	-

PD LAB Achievements Aug-2017

S.NO	B.NO	Name of the product	Block	Objective	Investigation	Results	Cost saving/Remarks
Trouble shooting							
1	PD/45/17	6-APA to Cloxacillin.Na	Reg-B	Investigation of 100lt Emulation in #2286	Distilled EA problem PH 4.0 Instead of 7.0	Inform to column in charge	U/ distillation EA convert to Some qty Acetic acid
Yield Improvement							
1	PD /05/17	Meropenem sterile	PB-II	To get yield>0.90	MSA Route developed	We got 0.86	Std route yield 0.86-0.89
Vendor Qualification							
1	PDETM17001 002,003	Cefotaxime Acid	Unit-VI	Vendor Qualification	3.0 std process performed	Complies	Clearance given to Unit-VI

PD LAB Achievements Aug-2017

S.NO	B.NO	Name of the product	Block	Objective	Investigation	Results	Cost saving/Remarks
Working standard							
1	PDEANA17005	Nafcillin Na Non sterile	FDA QC	Working std preparation	-	Complies	-
Raw materials Performance							
1	PD/03/17	6-APA to Oxacillin Na	Reg-B	Performance with distilled EA &Check Emulation	No emulation Yield also OK	Inform to production In charge	-
Method Developments							
1	PDETC17003	Cilastatin ammonium salt	PQC	Material sent to market	Resin method developed	Complies	Sample submit to PQC

PD LAB Achievements Aug-2017

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S.NO	B.NO	Name of the product	Block	Objective	Investigation	Results	Cost saving/Remarks
Non Moving							
1	PD/21/17, PD/22/17 PD/23/17, PD/24/17	Doripenem crude 27.0kg	Unit-II	To get good quality (In put 50% Assay instead of >85%)	In put 40% Consider	Quality complies	We got yield 0.118(std process ppt not came, gummy formed)
2	PD/16/17& PD/17/17	Amoxicillin Na Non sterile & Sterile Total 1100kg	PB-III	To convert Amoxicillin TH&Sodium sterile with good quality for ROW market	Non sterile and sterile separately Trihydrate converted with good method	Quality complies	Clearance given to production manager
Quality failed material							
1	PDEHTM17001, 002,003	Ceftiofur Na Unit-I, Imps & Abs Fail 200kg	Unit-VI	To get Final filtration fast(In plant 30% gummy material formed	Temp main at 30-32°c instead of 22-26°c	Filtration fast, No gummy Quality complies	Clearance given to Unit-VI production manager
2	PD/ 46/17(Pipercillin) &PD/ 18/17(Ampi	Ampicillin TH Unit-XI,Low Tr 30-60 instead of >90,~3000kg	PB-III &D-Block	This material convert to Pipercillin &Ampicillin Na Sterile	Both std process Done	Both products yield &Quality complies	Clearance given to production manager

PD LAB Achievements Aug-2017

S.NO	B.NO	Name of the product	Block	Objective	Investigation	Results	Cost saving/Remarks
Quality Improved							
1	PDECX17004, 005,006	6-APA to Cloxa.Na	Reg-B	To get Soluble in Ethanol & Un known Imp	Method developed, wet material 4% Aq.EA slurry given	Solubility &Un known both are solved	-
2	PD/46/17 to PD/50/17	Doripenem crude 10 batches dark yellow colour &low assay	PB-II	To get good colour & Quality in sterile	Batch wise performed more colour batches two time purification with good method	All batches colour and quality complies but average yield 0.50	Clearance given to production manager

Achievements Oct'16 to Aug'17

Manufacturing (Regulatory area)

1) Pipercillin Hydrate JP(8947 kg Jan2017 to sep17) and Tazocatam JP(503 kg Jan2017 to sep17) two product supplies to Meiji Japan although there is a capacity constrain. We got order suddenly without any projection and we put all effort systematically and complies commitment .worth of supplied qty is 14.8 cr.

2) Proposal given to merge PB-1 block is regulatory area, which is very essential for Pivmecillinam HCL and customer M/S Orion Pharma directly monitoring the project schedule.

3) Proposal given to make pipercillin Hydrate production in G block and without any investment with existing equipment product is validated and commercially supplied as per given time line (Qty supplied in August and Sep2000 kg)

4) Ampi-Sulbactam for injection 4800 kg additional qty order received from M/S Mylan. This qty was not planed supply schedule is given without affecting any other commitment worth of this additional qty is 11 cr.

Achievements Oct'16 to Aug'17

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Environment

S.No	Work Initiation / Achievements	Description
1	**Achieved Zero liquid discharge plant**	LTDS Effluent transfer to PETL was stopped and it is being taken to treatment from January 2017.
2	**MEE plant performance improved**	We have improved Multi Effect Evaporator Plant performance from 100 KLD to 160KLD and condensate quality(TDS) also improved from 5000 mg/ltr to 2000 mg/Ltr
3	**Stripper taken in to operation**	we have done stripper and reboiler cleaning, replaced the condenser and modified the vapour line. Now Stripper is running smoothly and mixed solvent is being sent to cement industries. Earlier it was in idle since 2012.
4	**Maintaining consistent performance of waste water treatment systems, smooth handling and disposal of Hazardous waste.**	*Treatment systems, i.e., Pre treatment, Stripper, MEE, ATFD, Bio ETP, RO, Decanters are being run with good efficiency. *Effluent lifting done without hampering of production activity *Implemented the Cleaning process in MEE,ATFD and STP for smooth operation. *Hazardous waste collection and disposal are being done without delay and maintaining minimum storage at our HW shed

Achievements Oct'16 to Aug'17

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Environment

S.No	Work Initiation / Achievements	Description
5	**Reduced maintenance break down hours of treatment systems.**	we have done modification in treatment systems to reduce the break down hours and controlled damaging of seals.
6	**Sludge removal from effluent storage tanks.**	Initiated sludge removal from effluent storage tanks periodically. 200Tons of sludge removed and disposed to TSDF for the period of Oct2016 to August2017.
7	**Legal compliance**	Complied all legal requirements. No environmental issues in the period
8	**initiated disposal of Miscellaneous waste**	we are collecting and disposing the miscellanies waste like Thermo coal, Glass wool and CT fills to TSDF.
9	**Projects**	*300KLD MEE plant installation completed, it is ready to take trials. *150KLD Second RO plant installed and it is under commissioning from 6th September. * New Hazardous waste shed constructed with free space at MEE area for safe storage and handling of hazardous waste.

Achievements Oct'16 to Aug'17

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Safety

S.No	Work Initiation / Achievements
1	12 Ton Boiler, 15 TPH Coal crusher, Warehouse Kirby Shed at 68 site, New MEE, New RO Plant, Reg. SRP projects completed without any reportable accidents
2	Fire Alarm System arranged for Emerging Site.
3	Nitrogen blanketing system installed for 22 storage tanks.
4	Ammonia detectors arranged for chilling plants.
5	Boiler site Fire Hydrant points extended up to MEE.
6	. Oxygen analyzers placed in important positions in A Block, B Block, C Block, D Block, and G Block .
7	Onsite Emergency Plan updated with Zoning classification.
8	Auro Safety Month celebrated with safety awareness programs in December 2016. National Safety Day celebrations conducted in March 2017
9	Handled the ORIEN EHS audit successfully
10	Hazop studies conducted for all the products in the plant

Productivity Improvements

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1 Installation & Commissioning of 15TPH Coal Handling Plant

Plant Installed & Commissioned on 28.8.17.

Installed 15TPH in place of 4,8,10 TPH Plants for productivity enhancement.

Advantages:

a) To meet the crushed coal requirements for our APL Units III, IV, V & VI.

b) To reduce the cost component from Rs. 107 to Rs. 87 per Ton on 4880 Ton per month (Rs. 11.71 Lacs / Annum)

c) To reduce the manpower from 33 nos to 23 nos (Rs. 11.88 Lacs / Annum).

d) To meet the PCB dust pollution norms by adding dust collection systems.

e) To reduce the power consumption (from 80 kw to 50 kw) hence cost benefit per Annum Rs. 11.86 Lacs.

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f) To reduce the diesel consumption by 12 Ltrs / day, hence cost

2 **Installation & commissioning of G-Block new facility for Amoxicillin Tri Hydrate & Tazabactum product 100 MT/Month**

- Provided the facility for Amoxicillin & Tazabactom products manufacturing.

3 **Installed & commissioned new sparkler filters for B-II Japan market,**

Pipercillin Hydrate productivity increased from 2 to 7.3 MT / month.

- To increase the productivity - Pipercillin

4 **Installation of A&B Blocks graphite condensers Cap: 20M² for B-II pipercillin product 11MT / month.**

- To increase the productivity & occupancy.
- To meet the market requirement

5 **Installation of MDC distillation column (400mm dia) for MDC process requirement at SRS column**

- To increase the solvent recovery process.
- To make alternative for replacement of other columns.

6 **Installation of new Water cooled chiller to meet the Env. parameters for C-Block sterile to avoid deviations.**

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- Higher efficiency than existing VAM's
- Detailed COP & cost benefit sheet attached (Rs. 14.11 Lacs / month)

7 Relocation of SRS Column & commissioning of all the columns (5nos) from damaged structure without stoppage of column.

- Safety concern eliminated.
- Quality and quantity improvement as all the columns refurbished and new line installed

8. Installation & commissioning of new ETP RO 2nd Stage plant

- 20 % of effluent generation reduction
- Load reduction on MEE & ATFD.
- Scope to increase the production in blocks.

9. Installation & commissioning of new 12 TPH Boiler for steam operations.

Advantages:

- Existing 24TPH Boiler is operating at de rated capacity i.e. 16 TPH by operating 2 beds instead of 3 beds.
- Due to 2 beds operations efficiency of fuel & steam ratio will be less.
- Higher efficiency than existing.

10. New 300KLD MEE System for handling the Plant Effluents Erection & Commissioning activities completed - Trail runs to be taken, awaiting for Chinese team.

Advantages:

- In direct heating for all the columns will be reduced steam consumption and effluent generation.
- To meet the production enhanced requirements.

11. **UPS power supply provision for critical AHU's operation during power failure**

Advantages:

- To operate continuous incase of power failure to avoid cross contamination in sterile filling rooms.
- To meet the audit requirements.

12. New facility provided at Plot No 68

1. Drum yard facility for storage of raw materials for capacity enhancement storage.
2. Cold room (2 to 8°C) for RM & finished goods storage to avoid hired containers.

13. Online belt weighing system provided for coal handling plants to measure the accurate coal consumption to monitor and control the consumption.

14. PQC Lab modification to meet the enhanced production at Emerging area to meet the facility up gradation & audit requirements.

GMP

Data integrity issues resolved by implementing 21CFR Part 11.

- SIP Systems SCADA
- Filtration system SCADA & BMS systems up gradation
- To enable audit trail futures, password protection for individual persons, alarms loggings

BMS facility improvement to meet the audit compliances.

- To avoid data logging problems, communication problems,
- To increase controller communication speeds, enchantments of data storage.

Cost Control Implements

1. Utilization of reject water recirculation to all the cooling towers.
2. Steam leakages & venting losses control whenever possible clearances.
3. Replacement of old MCC / PCC panels at ETP, MEE, Boiler, Utility areas with new one to reduce the KWH units & breakdowns.

Safety Control Measures

1. Complying statutory requirements through online system Vision 360 on quarterly review basis. (Boilers, CEIG, Pressure vessels, tools, tackles, safety valves, legal metrology, weights & measurements etc..)
2. Fulfilled audit requirements observations, internal audit observations, customer audit requirements.
3. Installation of Nitrogen blanketing system for, fire alarm systems to meet the CEHS recommendations.
4. All the equipment's safety valves, rupture discs, vents provided for safe operations.
5. Nitrogen Blanketing system for storage tanks installed.
6. Fire Hydrant lines extension up to MEE with 8 hydrant hose points for

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Thank you